

=> d his

(FILE 'HOME' ENTERED AT 10:21:16 ON 01 APR 2003)

FILE 'CAPLUS' ENTERED AT 10:21:56 ON 01 APR 2003  
L1 2654656 S PREVENT? OR AVOID? OR PRECLUD? OR PROHIBIT? OR REDUC? OR ELIM  
L2 1071543 S CORROSION? OR DECAY? OR RUST? OR DETERIORAT? OR DECOMPOS? OR  
L3 90872 S CMP OR CHEMICAL()MECHANICAL() (POLISH? OR PLANAR?) OR POLISH?  
L4 26201 S (METAL OR AL OR CU OR ALUMINUM OR COPPER) (3N)WIRE?  
L5 11166 S (DUMMY OR DUMMIES OR FINE OR MAIN) (3N) (LINE OR LINES OR PATTE  
L6 2 S L1 AND L2 AND L3 AND L4 AND L5  
L7 26 S L1 AND L2 AND L3 AND (L4 OR L5)  
L8 7 S L1 AND L2 AND L3 AND L5  
L9 5 S L8 NOT L6  
L10 19 S L7 NOT L8

=>

=> d bib ab 16 1-2

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:487985 CAPLUS

DN 137:55777

TI Semiconductor device capable of preventing corrosion  
of metal wires from CMP (chemical  
mechanical polishing) process

IN Kim, Hyung-Jun

PA S. Korea

SO U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DT Patent

LA English ..

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002079517	A1	20020627	US 2001-15757	20011217
PRAI	KR 2000-80891	A	20001222		

AB The invention relates to a semiconductor device comprising a plurality of metal wire patterns, each of which includes main fine line patterns, main pad patterns and dummy fine line patterns, wherein an area ratio of the dummy fine line patterns, which are connected to the main pad patterns, to the entire wire patterns is less than 1% and lower than a ratio of the main fine line patterns to the entire wire pattern

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:256920 CAPLUS  
DN 137:38029  
TI Control of pattern specific corrosion during aluminum  
chemical mechanical polishing  
AU Kim, Hyungjun; Kwon, Panki; Lee, Sukjae; Kim, Hyung-Hwan; Lee, Sang-Ick;  
Song, Seo-Young; Nam, Chul-Woo  
CS Memory R&D Division, Hynix Semiconductor Inc., Ichon, S. Korea  
SO Materials Research Society Symposium Proceedings (2001),  
671(Chemical-Mechanical Polishing 2001--Advances and Future Challenges),  
M6.5/1-M6.5/6  
CODEN: MRSPDH; ISSN: 0272-9172  
PB Materials Research Society  
DT Journal  
LA English  
AB A pattern specific corrosion of aluminum wires  
was found during aluminum chem. mech. polishing  
process. This paper presents and discusses the particular pattern  
dependency of the corrosion behavior and effective control  
methods in order to reduce the corrosion. An aluminum  
single damascene structure on silicon dioxide thin film was prep'd. and the  
effects of process variables and pattern configuration on  
corrosion behavior were extensively explored. The  
corrosion behavior was quant. analyzed using sheet resistance of  
corroded line. It was demonstrated that corrosion of  
aluminum wire was assoc'd. with cleaning media and  
pattern configuration. The area ratio between sub-micron size line and  
pads was the most important factors to det. the corrosion  
behavior. A post cleaning chem. including corrosion inhibitor  
could not prevent the corrosion perfectly. It was  
found that sacrificial dummy lines could  
reduce the aluminum corrosion, which suggests that the  
aluminum corrosion could be controlled by the structural  
consideration in aluminum damascene.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>